

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/FI 2004/000687

## A. CLASSIFICATION OF SUBJECT MATTER

IPC7: A61B 5/0478, A61B 5/04

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: A61B, A61N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-INTERNAL, WPI DATA, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages   | Relevant to claim No. |
|-----------|--|-----------------------|
| X         | PATENT ABSTRACTS OF JAPAN<br>JP 04 067841 A<br>abstract<br>& JP 04 067841 A (TERUMO CORP)<br>03 March 1992 (1992-03-03)<br>figures 3,4<br>-- | 1-15                  |
| A         | WO 0027279 A1 (DUROSSEAU, D. R.), 18 May 2000<br>(18.05.2000), see the whole document<br>--  | 1-15                  |
| A         | US 6067464 A (MUSHA, T.), 23 May 2000<br>(23.05.2000), see the whole document<br>--  | 1-15                  |

☒ Further documents are listed in the continuation of Box C.☒ See patent family annex.

## \* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&amp;" document member of the same patent family

Date of the actual completion of the international search

22 February 2005

Date of mailing of the international search report

18-04-2005

Name and mailing address of the ISA/

Swedish Patent Office

Box 5055, S-102 42 STOCKHOLM

Facsimile No. +46 8 666 02 86

Authorized officer

Anna Malmberg /LR

Telephone No. +46 8 782 25 00

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## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages                     | Relevant to claim No. |
|-----------|--|-----------------------|
| A         | US 6091977 A (TARJAN, P.P. ET AL), 18 July 2000<br>(18.07.2000), figure 1, abstract<br><br>--          | 1-15                  |
| A         | US 4773424 A (INOUE, H. ET AL), 27 Sept 1988<br>(27.09.1988), figures 1-6, abstract<br><br>--<br>----- | 1-15                  |

**INTERNATIONAL SEARCH REPORT**International application No.  
PCT/FI 2004/000687**Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)**

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

**Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)**

This International Searching Authority found multiple inventions in this international application, as follows:

see extra sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.: 1 - 15

**Remark on Protest**

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

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Box III

The following separate inventions were identified:

I: Claims 1-15 directed to an electrode structure for attachment to a more extensive measuring structure

II: Claim 16 directed to a method for attaching a silver lead of an electrode to a measuring lead.

A partial search has been carried out, which relates to the invention I mentioned above.

The applicant was invited to pay an additional fee for the invention II as listed above.

The present application has been considered to contain 2 inventions which are not linked such that they form a single general inventive concept, as required by Rule 13 PCT for the following reasons:

Claims 1-15 relate to the problem of scratching, impacts and wear of a brittle silver-chloride electrode. This problem appears to be solved by placing the electrode at the edge of a hole and close to, but not on, the surface of the measuring object, so that the electrode's longitudinal axis is parallel to the surface of the measuring object.

Claim 16 relates to the problem of alteration of the sintered electrode structure. This problem is solved by forming the electrically conductive connection in such a way that the electrode does not touch the connection point.

As both problems and solutions are technically different, no single general concept can be formulated based on the technical features of the inventions. Consequently, the requirements of Rule 13.1 PCT are not met.

It was investigated under Rule 13.2 if any further features, either in the claims or derivable from the description, could be considered as a same or corresponding feature and which could be considered a special technical feature establishing a technical link between the two groups of inventions.

No such features were identified.

Consequently, the two groups of inventions are not so linked as to form a single general inventive concept as required by Rule 13.1 PCT. As the applicant did not pay the additional fee, only the first mentioned invention was searched.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

01/04/2005

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|       |         |    |            |    |            |     |            |
|-------|---------|----|------------|----|------------|-----|------------|
| WO    | 0027279 | A1 | 18/05/2000 | AU | 1613400    | A   | 29/05/2000 |
|       |         |    |            | CA | 2354549    | A   | 18/05/2000 |
|       |         |    |            | CN | 1143244    | C   | 24/03/2004 |
|       |         |    |            | CN | 1277698    | A,T | 20/12/2000 |
|       |         |    |            | DE | 69912576   | D,T | 19/08/2004 |
|       |         |    |            | EP | 1038271    | A,B | 27/09/2000 |
|       |         |    |            | EP | 1128764    | A   | 05/09/2001 |
|       |         |    |            | FR | 2532267    | A,B | 02/03/1984 |
|       |         |    |            | JP | 2002519792 | T   | 02/07/2002 |
|       |         |    |            | JP | 2002529132 | T   | 10/09/2002 |
|       |         |    |            | TW | 514836     | B   | 21/12/2002 |
|       |         |    |            | US | 6496183    | B   | 17/12/2002 |
|       |         |    |            | US | 6708051    | B   | 16/03/2004 |
|       |         |    |            | WO | 0000934    | A   | 06/01/2000 |
| ----- |         |    |            |    |            |     |            |
| US    | 6067464 | A  | 23/05/2000 | JP | 3287788    | B   | 04/06/2002 |
|       |         |    |            | JP | 10165386   | A   | 23/06/1998 |
| ----- |         |    |            |    |            |     |            |
| US    | 6091977 | A  | 18/07/2000 | US | 5817030    | A   | 06/10/1998 |
| ----- |         |    |            |    |            |     |            |
| US    | 4773424 | A  | 27/09/1988 | AU | 582878     | B   | 13/04/1989 |
|       |         |    |            | AU | 599961     | B   | 02/08/1990 |
|       |         |    |            | AU | 6004986    | A   | 15/01/1987 |
|       |         |    |            | AU | 6994987    | A   | 15/09/1988 |
|       |         |    |            | EP | 0217384    | A   | 08/04/1987 |
|       |         |    |            | ES | 2000493    | A   | 01/03/1988 |
|       |         |    |            | JP | 1819946    | C   | 27/01/1994 |
|       |         |    |            | JP | 2032242    | Y   | 03/09/1990 |
|       |         |    |            | JP | 5029581    | B   | 30/04/1993 |
|       |         |    |            | JP | 62012455   | A   | 21/01/1987 |
|       |         |    |            | JP | 62059003   | U   | 13/04/1987 |
|       |         |    |            | KR | 9105882    | Y   | 12/08/1991 |
|       |         |    |            | MX | 170351     | B   | 18/08/1993 |